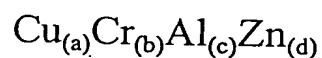


Claim 7

An improved copper chromite catalyst having the molar composition



wherein  
a = 10 - 40 mole %  
b = 10 - 40 mole %  
c = 10 - 30 mole %  
d = 5 - 40 mole %

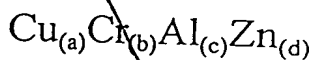
and  $a + b + c + d = 100$

and having an XRD pattern as shown in Table I

Table I XRD analysis of the copper chromite catalyst

$\theta$	Intensity (%)
18	100
26.2	100
27.4	48
35.8	92
44.2	48
56.6	44

Claim 8 A process for the preparation of a copper chromite catalyst having the molar composition



wherein  
a = 10 - 40 mole %  
b = 10 - 40 mole %  
c = 10 - 30 mole %  
d = 5 - 40 mole %

and  $a + b + c + d = 100$

and having an XRD pattern as shown in Table I

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Table I: XRD analysis of the copper chromite catalyst

$\theta$	Intensity (%)
18	100
26.2	100
27.4	48
35.8	92
44.2	48
56.6	44

said process comprising the steps of:

- (a) preparing an aqueous solution comprising a source of copper, a source of aluminum and a source of zinc;
- (b) adding to the aqueous solution of step (a) a source of chromium while stirring to form a precipitate;
- (c) recovering the precipitate and drying the precipitate at a temperature between 200 - 500°C for a period between 2 - 5 hours to obtain the catalyst.

Claim <sup>4</sup> 9 A process as claimed in claim <sup>3</sup> 8, wherein the source of copper is a copper salt selected from the group consisting of copper nitrate, copper sulfate, copper acetate and copper chloride.

Claim <sup>5</sup> 10 A process as claimed in claim <sup>3</sup> 8, wherein the source of aluminum is an aluminum